

Communication protocol

- 19200 bps, 8 data bits, 1 stop bit, no parity bit

Read data from Spr8 ("read 3 registers from address 0")

Request

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	CRC Lo	CRC Hi
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example (hex): 61 03 00 00 00 03 0C 6B

- address of regulator is: 97 dec

Answer

address Spr8	Function code	Number of bytes	Data 1 Hi	Data 1 Lo	Data 2 Hi	Data 2 Lo	Data 3 Hi	Data 3 Lo	CRC Lo	CRC Hi
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Received data explained:

- data 1 – measured temperature * 10
- data 2 – set temperature * 10
- data 3 Hi – 0
- data 3 Lo

ErP	ErS	parametrizing	output 2	output 1	mode bit 2	mode bit 1	mode bit 0
bit 7. 2.			bit 6. bit 1.	bit 5. bit 0.	bit 4.	bit 3.	bit

Mode:

- OFF 000 bin 0 dec
- HEA 001 bin 1 dec
- CoL 010 bin 2 dec
- H_C 011 bin 3 dec
- diS 100 bin 4 dec

example (hex): 61 03 06 00 D3 00 FF 00 0B 7D 52

- addressa regulator: 97 dec
- measured temperature: 21.1 °C
- set temperature: 25.5 °C
- mode : H_C
- output 1: ON
- output 2: OFF
- parametrizing: inactive
- Ers: no
- ErP: no

Write data Spr8 ("write 1 register to address 0")

Request

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	Number of bytes	Data 1 Hi	Data 1 Lo	CRC Lo	CRC Hi
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Write SP:

- data 1 – SP * 10

example (hex): 61 10 00 00 00 01 02 00 EA 8F DD

- address: 97 dec
- set SP to 23.4 °C

Answer

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	CRC Lo	CRC Hi
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example (hex): 61 10 00 00 00 01 08 69

- address: 97 dec
- the change was made

Read parameters from Spr8 ("read 3 registers from address 3")

Request

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	CRC Lo	CRC Hi
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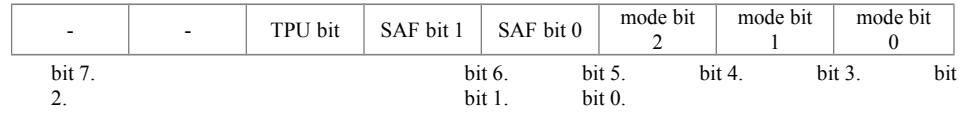
example (hex..., address is 01): 01 03 00 03 00 03 0C 6B

Answer

address Spr8	Function code	Number of bytes	Data 1 Hi	Data 1 Lo	Data 2 Hi	Data 2 Lo	Data 3 Hi	Data 3 Lo	CRC Lo	CRC Hi
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example:

- data 1 Hi – HSH (histeresys * 10)
- data 1 Lo – HSC (histeresys * 10)
- data 2 – FLt
- Data 3 Hi – dbd (dbd * 10)
- data 3 Lo



TPU:

- CEL 0 bin 0 dec
- FAH 1 bin 1 dec

SAF:

- noA 00 bin 0 dec
- CoL 01 bin 1 dec
- HEA 10 bin 2 dec

Mode:

- OFF 000 bin 0 dec
- HEA 001 bin 1 dec
- CoL 010 bin 2 dec
- H_C 011 bin 3 dec
- diS 100 bin 4 dec

example (hex): 01 03 06 0A 0B 00 05 0C 21 xx xx

- address: 1 dec
- HSH: 1.0 °
- HSC: 1.1 °
- FLt: 5
- dBd 1,2 °
- mode: HEA
- SAF: noA
- TPA: FAH

Write parameters to Spr8 ("write 3 registers to address 1")

Request

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	Number of bytes	Data 1 Hi	Data 1 Lo	Data 2 Hi	Data 2 Lo
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Data 3 Hi	Data 3 Lo	CRC Lo	CRC Hi
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- data 1 Hi – HSH (HSC * 10)
- data 1 Lo – HSC (HSC * 10)
- data 2 – FLt
- data 3 Hi – dbd (dbd * 10)
- data 3

Lo

-	-	TPU bit	SAF bit 1	SAF bit 0	mode bit 2	mode bit 1	mode bit 0
bit 7.				bit 6. bit 2.	bit 5. bit 1.	bit 4. bit 0.	bit 3.

example (hex): 01 10 00 01 00 03 06 10 11 00 08 04 2B 8A CB

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address: 1 dec
 HSH=1.6,
 HSC=1.7,
 FLt=8, dbd=0.4,
 TPU=1(F),
 SAF=01(CoL),
 Mode=011 (H_C)

Answer

address Spr8	Function code	Register beginning address Hi	Register beginning address Lo	Number of registers Hi	Number of registers Lo	CRC Lo	CRC Hi
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example (hex): 61 10 00 01 00 03 xx xx

- address: 01 dec
- the request was made ok